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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,400	10/26/2001	Koji Yoshida	P/1071-1505	3376

7590 01/30/2004
Keating & Bennett LLP
10400 Eaton Place
Suite 312
Fairfax, VA 22030

EXAMINER

RUGGLES, JOHN S

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

10/035,400

Applicant(s)

YOSHIDA ET AL.

Examiner

John Ruggles

Art Unit

1756

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 06 January 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1-3.

Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____.


John Ruggles
Examiner
Art Unit 1756

Continuation of 2. NOTE: it is not clear why applicants' new arguments against the original rejection of claims 1-3 based, in part, on the size of the Brebels' electronic component designed for "compactness" were not presented earlier in the prosecution of this case.

Continuation of 5. does NOT place the application in condition for allowance because: the proposed amendment and accompanying arguments have not been entered. Nevertheless, the description of Brebels' first embodiment found at column 6, lines 3-33 gives typical dimensions of 0.3 mm x 0.5 mm ($0.03 \text{ cm} \times 0.05 \text{ cm} = 0.0015 \text{ cm}^2$) for the microstrip closed loop 4. Corresponding Figure 1 shows insulation layer 9 and insulation 8 to be smaller and larger, respectively, in area than the loop 4. Relying upon Figure 1 for the relative size of these components, insulation layer 9 appears to have side dimensions roughly 3 times smaller than those of the loop 4 ($0.01 \text{ cm} \times 0.017 \text{ cm} = 0.00017 \text{ cm}^2$) and insulation 8 appears to have side dimensions roughly 3 times larger than those of loop 4 ($0.09 \text{ cm} \times 0.15 \text{ cm} = 0.0135 \text{ cm}^2$). Also, the entire substrate 2 of the high frequency circuit is shown to have dimensions about 7-8 times larger than those of the loop 4 ($0.21 \text{ cm} \times 0.35 \text{ cm} = 0.0735 \text{ cm}^2$ or $0.24 \text{ cm} \times 0.4 \text{ cm} = 0.096 \text{ cm}^2$). Therefore, one of ordinary skill in the art would consider Brebels' design for "compactness" to at least include insulating film areas on the order of about 0.0002-0.1 cm^2 , which clearly reads on the instant "0.5 cm^2 OR LESS" (emphasis added). It is also noted that, contrary to applicants' argument on page 6, Brebels teaches building up plural dielectric or insulating layers and plural patterning of each of several metal layers by conventional methods. It would have been obvious to have separately patterned each of plural dielectric or insulation layers separating the patterned metal layers (e.g., to prevent unwanted shorting between the metal patterns, etc.). Furthermore, the motivation for combining Kornrumpf with Brebels was already explained in both previous Office actions (namely, in order to form a high density interconnect structure in a manner that provides close impedance matching, minimizes impedance discontinuities, and substantially increases the yield of good circuits). In addition, Ohya establishes the link between flexural strength and thickness of a ceramic substrate used in circuit manufacturing. Particularly, Ohya teaches a ceramic substrate 0.1-6 mm thick having a flexural strength of 408-510 kgf/cm^2 or greater to avoid cracking of a fragile substrate during handling and processing. Ohya also gives specific examples for flexural strength of the ceramic substrate in the range of 469-1846 kgf/cm^2 . Therefore, instant claims 1-3 are still believed to be obvious variations in view of the previously cited art of record in this case.



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SUPPLEMENTAL
TECHNICAL

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